CURRICULUM VITAE

Abdullah TAV, PhD

A. J. Drexel nanomaterials institute, Material Science and Engineering, Drexel University 3141 Chestnut St, Philadelphia, PA, US
215-327-5741
at3743@drexel.edu

Professional Experiences

2026 – Current	**Drexel University** Visiting researcher, Material Science and Engineering Advisor: Prof. Y. Gogotsi	Philadelphia, USA
2026 – Current	**TUBITAK (Scientific and Technological Research Council of Turkey)-** 2219 International Postdoctoral Research Fellowship Program	Turkey
2019 – 2025	**TUBITAK -TAI (Turkish Aviation Industry)** Fellow Research Scholar	Turkey
2018 – 2019	**Mitosan Inc.** Polymer Engineer	Turkey
2017 – 2019	**Delta Chemicals** R&D Engineer	Turkey

EDUCATION

2019 – 2024	**Bursa Uludag University** Bursa, Turkey Ph.D., Polymer Materials Thesis: Synthesis and Characterization of Lightweight Aerogel Insulation Materials
2016 – 2019	**Yalova University** Yalova, Turkey MSc., Polymer engineering Thesis: Production and Characterization of Chitosan with Different Methods from Crustaceans
2011 – 2016	**Yalova University** Yalova, Turkey BSc., Polymer engineering

RESEARCH INTERESTS

- Aerospace-oriented thermal management and passive insulation technologies
- MXene-based aerogels and porous architectures for thermal and multifunctional applications
- Supercritical CO_2 drying and structure–property relationships in porous materials

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PUBLICATIONS

1. Çelebi M., **Tav A**., Kaya M. A., Özdemir Z. Ö.,
   "Scalable production of low-molecular-weight chitosan: Comparative study of conventional, microwave, and autoclave-assisted methods," *Polymers*. 18(2), 213 (2026).
2. **Tav A**., Öz Y., Akyıldız H. İ.,
   "Identification of permethyloctasilsesquioxane by a novel method: collecting smoke formed by chemical changes in a methylsilsesquioxane blanket at 2000–2500 °C using gas chromatography–mass spectrometry,″ Analyst 150, 3958–3973 (2025).
3. Karaboğa F.,**Tav A.,** Demirel M., Toros S., Öz Y.,
   "Experimental and numerical investigation of aerogel-based insulation material for aerospace applications," Makina Tasarım ve İmalat Dergisi 23(2), 56–64 (2025).
4. **Tav A.**, Öz Y., Akyıldız H. İ.,
   "A scalable vacuum-assisted method for production of aerogel blankets for thermal insulation," Journal of the American Ceramic Society 108(5), e20267 (2024).
5. **Tav A.**, Öz Y., Akyıldız H. İ.,
   "Formation and thermo-physical properties of aerogel ceramic blanket composites synthesized via scalable atmospheric pressure process with methyltrimethoxysilane precursor," Journal of Porous Materials 31(1), 317–334 (2024).
6. **Tav A.**, Öz Y., Akyıldız H. İ.,
   "Thermal and mechanical properties of sol–gel silica coated fabrics," European Journal of Science and Technology 31, 309–319 (2021).

INTERNATIONAL CONFERENCE

1. Karaboğa, F., Tav A., Akyıldız, H. İ., Demirel, M., Toros, S., & Öz, Y. (2024). Development of Thermal Insulation Material for Aerospace Applications. Presented at the 20th International Conference on Machine Design and Production (UMTIK 2024), Turkey, August 14–17, 2024.
2. Tav, A., Öz, Y., & Akyıldız, H. (2021). Surface Modification of Silica Aerogel Blankets Using Trimethylsilyl Chloride (TMCS) as a Silanization Agent. Presented at the 8th International Fiber and Polymer Research Symposium, Turkey, June 18–19, 2021
3. Tav, A., & Çelebi, M. (2019). Production of Natural Polymers from Shellfish. Presented at the 4th International Congress on Engineering, Architecture and Design, Turkey, April 23–24, 2019.
4. Tav, A., Çelebi, M., & Kaya, M. A. (2017). Research of Mechanical Properties of Poly(lactic acid) and Green Composites. Presented at the 8th International Conference on Engineering Technology and Innovation, Bosnia and Herzegovina, March 22–26, 2017.

HOBBIES

- Botany and Outdoor Activities